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[o. 267.—Vol. XXIII, No. 1.] [JANUARY, 1911.

THE BRITISH JOURNAL OF DERMATOLOGY

CONTENTS.

PAGE

A Further Case of Pemphigus Foliaceus, with Remarks. R. CRANSTON LOW, M.B., F.R.C.P. 1

A Note on some Cases of Grouped Comedones in Infants. E. H. R. HARRIES, M.D., B.S.Lond., D.P.H. 5

Ehrlich-Hata's "606" 8

The Wassermann Reaction. PAUL FILDES, M.B., B.C. . . 13

Royal Society of Medicine—Dermatological Section.—Secondary syphilis in which a fading roseola simulated ichthyosis—Epidermolysis bullosa—Inflammatory nodules—Acne scrofulosorum—The most convenient method of giving "606" intravenously—Linear nævus—Case for diagnosis—Chronic (artificial?) skin-eruption in a patient whose case has been followed for fourteen years 19

The Journal 31

Current Literature—Dermatitis herpetiformis in early childhood—Arsenical keratosis and arsenical cancer—Epithelioma and Lupus vulgaris—Lichen rubra acuminatus (Pityriasis rubra pilaris of Devergie)—"Stereophlogosis," nodular and circinate (Granuloma annulare of Crocker)—Xeroderma pigmentosum 31

Reviews—Diseases of the Skin (including Radiography and Radium-therapy)—A System of Syphilis 33

List of Books, Pamphlets, etc., Received 34

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JANUARY, 1911.

A FURTHER CASE OF PEMPHIGUS FOLIACEUS, WITH REMARKS.

(*From the Skin-Department of the Royal Infirmary, Edinburgh.*)

By R. CRANSTON LOW, M.B., F.R.C.P.,
Assistant Physician.

In the April and May numbers of this journal I published records of cases of Pemphigus foliaceus. In the present article I propose to add a short note of the subsequent progress of two of these cases, and also to report a fresh case of the disease.

One of the previously recorded cases (Case 1) is at present in the Longmore Hospital for Incurables, to which she was transferred from the Infirmary. Although it is now four years since the disease began the condition of the skin is practically *in statu quo*. She has had a prolonged course of injections of soamin, but with no effect at all upon the skin condition. Cultures were made on several occasions recently from flaccid blebs and oozing surfaces of her skin, and, as was the case when she was in the Infirmary, a culture of staphylococci only was obtained. *Bacillus pyocyaneus* has never been grown from her skin.

Case 3 (of the previously reported cases) has remained fairly well up to the present, but has occasional recurrences of an eruption of the nature of Dermatitis herpetiformis. She has had no recurrence of the extensive exfoliating eruption which she presented on admission to hospital.

The fresh case which I have to record is, like the previously reported cases, a female, aged 52 years, and married. She was

admitted on March 12th, 1910, to the skin wards of the Royal Infirmary under the charge of Dr. Norman Walker, and to him I am indebted for permission to publish her case.

Her present illness began in July, 1908, as a dry scaly eruption, affecting chiefly the flexures of the limbs. There were a very few isolated vesicles to be seen. There was some itching, and the blood showed an eosinophilia of 30 per cent. She was seen then by my colleague, Dr. Gardiner, and the diagnosis of Dermatitis herpetiformis made. This eruption came and went for a considerable time, never disappearing completely. In August, 1909, she became much worse. An extensive eruption appeared, and spread all over the body and limbs till the whole surface was moist and oozing with large flakes of skin exfoliating. She remained in much the same condition, and was admitted to the Infirmary on March 12th of this year. Before admission she had had prolonged doses of arsenic internally, but with no result.

Her previous health had been good, except that for several years she suffered from piles. Her family history contains nothing of note.

On admission, her whole skin is seen to be of a brownish colour and the seat of a typical eruption of Pemphigus foliaceus. The characteristic sickly odour is present. Small flaccid blebs are visible here and there, especially on the hands and wrists and on the feet, but all over the rest of the head, body, and limbs the skin is peeling off in large flakes, with red moist areas here and there. The arrangement of these raw areas is peculiar. They run in gyrate and circinate patterns. This appearance is apparently due to the inflammatory exudate raising up the skin at various places, and from each of these places it seems to spread out peripherally, healing over in the centre as it spreads at the edge, thus giving the circinate arrangement of the raw areas, where the superficial layers of the epidermis have been recently raised up and cast off by the fluid underneath, whilst the central areas are healing and covered by newly formed skin. There are no lesions in the mouth. The skin does not show any keratosis.

Cultures made from the flaccid unruptured blebs and from the raw areas on the skin gave a mixed growth of *Staphylococcus albus* and *Bacillus pyocyaneus*.

The urine contains no albumen and no sugar. Indican is present in considerable quantity.

Examination of the chest and abdomen reveals nothing of note. I am indebted to Drs. K. W. Hogg and L. F. Bianchi, who made the following blood examinations:

The blood on admission contained—

Hæmoglobin	70 per cent.
Red blood-corpuscles	4,100,000 per c.mm.
White blood-corpuscles	16,500 per c.mm.

A differential count of over 500 leucocytes showed—

Polymorphonuclear leucocytes	45 per cent.
Lymphocytes	1 ,,
Large mononucleated leucocytes	3 ,,
Eosinophile leucocytes	50 ,,
Unclassed cells	1 ,,

On March 30th the leucocyte count was 22,000 per c.mm., on May 25th 10,400, and on May 26th 11,400 per c.mm.

The following is a record of the proportion of eosinophile leucocytes on the different dates:

March 15.—50 %	May 4.—28 %	May 26.—14 %	June 14.—36 %
,, 30.—32 ,,	,, 9.—14 ,,	,, 28.—20 ,,	,, 16.—34 ,,
April 10.—16 ,,	,, 12.—18 ,,	,, 30.—22 ,,	,, 21.—26 ,,
,, 12.—16 ,,	,, 15.—20 ,,	June 2.—14 ,,	,, 27.—28 ,,
,, 14.—10 ,,	,, 18.—28 ,,	,, 4.—14 ,,	,, 29.—30 ,,
,, 18.—20 ,,	,, 23.—16 ,,	,, 7.—14 ,,	

From the above table it is seen that the eosinophile leucocytes varied from 14 per cent. up to 50 per cent. The number varied considerably at short intervals and bore no relation to any visible alteration in the skin-eruption. Out of the twenty-three estimations which were made the average percentage of eosinophile leucocytes is 22·7 per cent.

During the whole time in hospital the temperature has been slightly raised at night, usually up to between 100° and 101° F., and occasionally as high as 103° F.

The internal treatment has consisted of salicin gr. xv *t.i.d.*, quinine gr. iv *t.i.d.*, and liq. arsenicalis ♏iv *t.i.d.* Each of these drugs was given in succession for considerable periods. Some benefit followed the use of the arsenic. Locally she has had a daily starch bath and has been kept covered with an ointment spread on strips of cloth and covered with a bandage. Ung. sulphuris, Bismuth. oxychlor. gr. v

to vaseline ℥j, and zinc oxid. gr. xxx to vaseline ℥j were each tried in turn, most benefit resulting from the use of ung. sulphuris. On May 25th she developed a large swelling near one of the elbows. This swelling was opened and contained a considerable quantity of pus. Whilst in the ward the skin condition has improved considerably. There are now small areas of fairly healthy skin here and there. Nikolski's sign (stripping off of the superficial layers of the skin by pressure) is not so marked as on admission. There are occasional flaccid, badly formed vesicles to be seen on the hands and feet. Her general condition is unaltered, except that on July 6th she suddenly developed a hemiplegia of the left side probably due to a cerebral hæmorrhage. Now (July 28th) the paralysis of the face is completely well and she can move the left arm and leg slightly. The eruption has not altered in any way on the paralysed side.

The above case is, therefore, in all respects a typical one of Pemphigus foliaceus, which began as a Dermatitis herpetiformis. It illustrates the difficulty in the early diagnosis of such cases. If, as seems to be the case, a by no means insignificant proportion of cases of Dermatitis herpetiformis develop into Pemphigus foliaceus, the prognosis which one gives at the commencement of all cases of Dermatitis herpetiformis should be guarded. There is unfortunately no sign by which one can tell whether a case of Dermatitis herpetiformis is likely to develop into Pemphigus foliaceus.

The brown colour of the skin in this case is readily accounted for by the arsenic which she had taken for a considerable time before admission to hospital. The absence of keratosis on the hands and feet is also striking.

The only other point of interest in the case is the finding of *Bacillus pyocyaneus* in the skin. Hazen (1) recently published a case of Pemphigus foliaceus in which he obtained *Bacillus pyocyaneus* from the skin, circulating blood and urine in pure culture. In that article Hazen states that this organism is probably the cause of the disease. It seems to me, however, that he is not justified in coming to that conclusion. He admits the possibility of error in taking the culture from the blood, and everyone knows, who has made cultures from the blood, how easily contamination from the skin occurs, even when the skin is quite healthy. How much more likely is infection to occur when the skin is in a condition such as it is in Pemphigus

foliaceus. Hazen does not state how the urine, which gave a pure culture of *Bacillus pyocyaneus*, was obtained, because unless the specimen was obtained by catheterisation the observation is worthless.

Out of three of our cases only one gave a culture of *Bacillus pyocyaneus* from the skin, although in all the cases that organism was repeatedly sought for. Hazen obtained a violent general reaction by injection of a vaccine of *Bacillus pyocyaneus*, but that does not necessarily mean that the disease is due to that organism. In cases where the skin contains the *Bacillus pyocyaneus* in large numbers there is bound to be an absorption of their toxins, and one would expect to get a general reaction on injection of a further quantity of these toxic substances. In the present state of our knowledge I do not think that we are justified in assuming that the *Bacillus pyocyaneus* is the cause of Pemphigus foliaceus.

REFERENCE.

(1) "A Case of Pemphigus Foliaceus," by H. H. Hazen, *Journ. of Cut. Dis.*, March, 1910, p. 118.

A NOTE ON SOME CASES OF GROUPED COMEDONES IN INFANTS.

BY E. H. R. HARRIES, M.D., B.S.LOND., D.P.H.,
Senior Assistant Medical Officer, City Hospital, Fazakerley, Liverpool.

THE condition of grouped comedones in infants and children has been recognised for many years and recorded cases are fairly numerous in the literature. Nevertheless a brief note on four examples which have recently come under my observation may not be without interest.

All four children were admitted this year to the City Hospital, Fazakerley, for various infective diseases, and the condition of grouped comedones was noted incidentally in examining the cases.

CASE 1.—Horace H—, aged 6 months, admitted suffering from measles. Breast fed up to the time of admission. Well-marked eruption of morbilli. Had also on either cheek a group of numerous small closely set comedones, showing no tendency to inflammatory

change or to pustulation. Condition confined strictly to the sites noted.

Case 2.—Harold H—, aged 9 months. A premature child. Admitted with epidemic diarrhœa. Breast fed until shortly before admission. Well-marked group of numerous small comedones on either cheek; a few discrete lesions on the forehead, and two comedones set close together on the right side of the neck, immediately below the angle of the jaw. No comedones elsewhere on the body. No tendency to inflammation or pustulation.

Case 3.—Edward L—, aged 3 years and 7 months. Admitted for diphtheria. Breast fed until thirteen months old. Had three groups of extremely small comedones—one group over each malar prominence and the third in the centre of the forehead. No comedones elsewhere on body. No tendency to inflammation or pustulation.

Case 4.—Michael E—, aged 1½ years. Admitted for scarlet fever. Breast fed up to the time of admission. An extremely well-marked group present on each cheek: symmetrical patches 1¼ in. square. The individual comedones were of somewhat larger size than had been observed in the other cases. In addition there was a small sparse group in the centre of the forehead and a similar discrete group on the chin. Three comedones of the group on the right cheek had become pustular. No other part of the body affected.

It will be noted that all these cases were male breast-fed children, having been on the breast for six months, nearly nine months, thirteen and eighteen months respectively.

All were in an extremely dirty condition on admission; and in all of them the condition was noted to clear up considerably with the ordinary washings of the face while in hospital.

With the exception of Case 2 (in which two comedones were found on the neck in addition) the groups were confined to the prominent portions of the face.

The history in Case 4, which I was able to investigate more fully, is interesting. The mother, whom I examined, presented a few ordinary comedones on the face, but had no acne on the breasts or elsewhere. She, like most of the working class Lancashire women, was wearing the thick, woollen, somewhat greasy-looking shawl which serves both as a covering for the mother and a sort of support for the baby.

The mother stated that the baby was noticed to have "black-heads" on the cheeks about a month after birth.

She had had four other children. All were males, all had been breast-fed until they were about a year old, and in all of them the mother had noticed "black-heads" on the cheeks in infancy. These, she said, "wore away as the children grew up."

She had never rubbed any preparation on the babies' faces.

Adamson* says that "it has been suggested that the lesions occurring on the cheeks are due to irritation from the mother's clothes. It has been known to occur in several members of one family. Boys are said to be more often affected than girls."

J. M. H. MacLeod, who has shown several cases of the condition, states of one of them† (an infant aged 14 months with groups of comedones on both cheeks and on the chin), that the lesions "were first noticed when the child was four months old. The mother, who had nursed the infant, had suffered since childhood from Acne vulgaris affecting the face, neck, shoulders, and chest, but not the breasts. With the exception that grouped comedones in childhood appear to be more common in males than females, little is known of their ætiology."

S. E. Dore‡ showed a case of multiple comedones in a breast-fed child, aged 13 months. Chest, back, and face affected. The child's chest had frequently been rubbed with camphorated oil. "The second child, who died at the age of two years, had suffered from black-heads on the face from four to twelve months."

Most observers seem agreed that male children are affected more often than females. My cases certainly were all males, and the four other children noted in Case 4 were all males, and all eight infants were breast-fed.

As far as one can judge from the relative number of infants under observation the condition would appear to be more common in Liverpool than London. Out of a much larger number of all sorts and conditions of infants which came under my observation there I only noted the condition of grouped comedones once. Amongst the working-class women here, as already noted, the use of the shawl is

* Adamson, *Skin Affections in Childhood*, Oxford Medical Publications.

† *Proc. Roy. Soc. Med.*, Dermatological Section, November 28th, 1907.

‡ *Ibid.*, June, 1909.

almost universal. This garment enfolds both the mother and infant. I have taken special note of the position of the child's face in relation to the shawl, and in a large number of instances the folded free edge of the garment was observed to be rubbing against the child's face as the mother walked along the street. From the appearance of many of these shawls one would imagine that they were in the nature of heirlooms passed on from mother to daughter. They are of some value, being frequently exposed for sale second-hand at 12*s.* to 15*s.*

There may be nothing in this observation, but taken with the views of dermatologists as to the ætiology of the condition it seems a little suggestive. Breast-fed children are naturally more frequently carried at the mother's breast than those fed by artificial means.

In conclusion I would express my thanks to Dr. Claude Rundle, Medical Superintendent of the City Hospital, Fazakerley, for permission to make use of these cases.

EHRLICH-HATA'S "606."

In his classic work on *Venereal Disease* published in 1786, John Hunter condemned the "ungrateful and unsettled mind of man" in his endeavour to obtain a substitute for mercury in the treatment of syphilis. "If," he wrote, "there is such a thing as a specific, mercury is one for the venereal disease. . . . Yet mankind are in pursuit of other specifics for the disease, as if specifics were more common than diseases." The "ungrateful and unsettled mind of man," though occasionally turning to gold, silver, and the compounds of iodine, has, on the whole, proved constant to mercury. Of late years there have been many controversies as to the most satisfactory method of introducing the drug, and as to the length of time which should be given to the treatment, but we may fairly say that there has been a remarkable unanimity in the empirical use of mercury. Whether it will altogether be displaced by the new remedy of Ehrlich and Hata must depend upon experience. We are no longer in the age of empiricism, for in 1904 a new era was inaugurated by Schaudinn and Hoffmann's discovery of the *Spirochæta pallida*, which established the pathogeny of syphilis upon a sure basis. A period of remarkable activity followed. Metchnikoff and Roux showed that

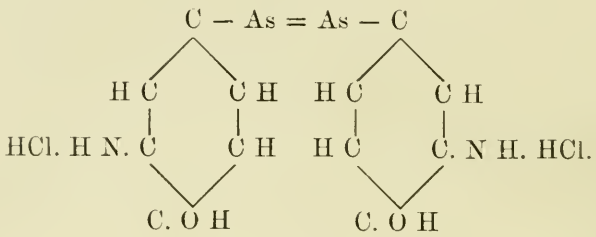
syphilis could be communicated to apes, and Bartarelli found that the rabbit could be inoculated with the spirochæte. These discoveries opened up a field of research in which the effects of remedies upon the living organism could be observed with some approach to accuracy. The paper of Wassermann, Neisser and Bruck on the serum reaction, now known as the Wassermann reaction, placed in the hands of those skilled in hæmolytic research, a test which could be applied to the human subject. The value of this reaction has been so universally recognised that it is superfluous to insist upon its importance. The more recent work of Boas upon the quantitative estimation of the changes in the blood promises still greater accuracy in the estimation of the influence of remedies upon the syphilitic patient, and in this number of the Journal we publish a critical analysis of these researches.

It is almost impossible to realise that in the short space of six years the pathogeny of syphilis, a disease which has been studied for centuries by clinicians and pathologists, should have been placed on a higher level than that of almost any known disease. A careful study of Ehrlich and Hata's *Chemo-therapie der Spirillosen*, which we may look upon as the sequel of the work of Schaudinn, Metschnikoff, Wassermann, Neisser and others already mentioned, shows that the introduction of "606" to the profession is not merely the discovery of a new drug, but the opening up of an entirely new line of work. It is also a most important vindication of the value of experimental medicine.

Although there were attempts to replace mercury in the treatment of syphilis by gold, silver, and the compounds of iodine, arsenic has been the only serious competitor of the old specific. Donovan's solution, we know, has long been in use, but more recently attention has been chiefly directed to the organic compounds of arsenic. Atoxyl, arsacetin, soamin, and arylarsonates have all been found to have a definite influence upon syphilis. Arsenic is what Ehrlich calls "parasitotropic," viz. it has the power to destroy certain forms of parasite, but, unfortunately, it is also "organotropic," *i. e.* toxic to the tissues of the host. Some of the above-mentioned remedies are highly toxic. It is hardly necessary to recall the cases of optic atrophy which have followed the use of arsenical compounds in the treatment of syphilis. The problem has been to find a body which is

sufficiently parasitotropic, and yet non-toxic. This difficulty is claimed to be overcome in dioxy-diamido-arseno-benzol, Ehrlich-Hata's "606." That this claim is well-founded appears proved by the fact that there have been only twelve deaths in 12,000 injections of the new remedy. A large proportion of these fatalities have been due to faulty technique, to the improper selection of cases, and also to the use of the drug in moribund patients.

The chemical formula which is said to represent the constitution of "606" is—



The body is in the form of a bichloride, and is sold under the name of "Salvarsan." It is a patented preparation. Salvarsan is a yellow powder, which is very slowly, but completely, soluble in water. As the substance is easily oxidised it is sent out in sealed glass tubes, which have first been exhausted of air and then filled with an inert gas. Each tube contains 0·6 grm. of the drug. In its condition as sold salvarsan is highly toxic and requires neutralisation with an alkali. The neutralisation must be performed immediately before use.

The arsenic in "606" is trivalent, and this point is insisted upon as of the first importance by Ehrlich. Pentavalent arsenic compounds are less destructive of spirilla and larger doses have to be given, and it is these larger doses which are said to be the cause of the damage to the optic nerve.

Salvarsan has many advantages over the first specimens of "606" which were sent out by Ehrlich. It is much more soluble, and, in the writer's experience, causes less pain. The first supply of the drug used required solution in pure methyl alcohol, followed by dilution with saline and neutralisation with caustic soda. A large quantity of the caustic alkali had to be employed, and this, with the bulk of the injection, caused a great deal of suffering, often requiring

the administration of morphia. Neutral emulsions were found to be attended with less pain, but there appeared to be some doubt as to their being so efficient as the alkaline solution. In the preparation now supplied there is no need to use methyl alcohol, and the neutralisation of the bichloride is performed with a 15 per cent. solution of sodium hydrate. For intra-muscular or subcutaneous injection the contents of one tube of salvarsan are rubbed up carefully with ten drops of the alkaline solution, and sterile water is added drop by drop up to about 10 c.c. This produces a suspension, which is then made neutral to litmus by the addition of more of the alkali or dilute hydrochloric acid. The intra-muscular injection is given in the gluteal region in the same site as the mercurial injections. The subcutaneous injection is given in the scapular region.

In the intra-venous method the dose is 0·5 grm. of salvarsan, dissolved in 0·94 c.cm. of sodium hydrate solution (15 per cent.); 250 c.cm of 90 per cent. physiological salt solution are added, and the solution is filtered to remove any solid particles. It is most important that no solid be introduced, immediate coma having supervened in one case within the writer's knowledge. In the report of the *Transactions of the Dermatological Section of the Royal Society of Medicine* (p. 23) Mr. McDonagh describes in detail Schreiber's method of making the injection. The great advantage of the intra-venous method is the absence of pain.

It is, as yet, too early to discuss the relative value of the intra-muscular, subcutaneous and intra-venous injections. Several recent writers advocate the intra-venous injection of 0·4 to 0·5 grm., followed, after forty-eight hours, by an intra-muscular injection of 0·3 to 0·4 grm. It has been shown that the arsenic injected intra-venously is excreted in about three or four days, and the subsequent intra-muscular injection forms an "arsenic *depôt*," which is believed to act upon resistant spirochætes which have escaped the first injection. Further experience alone can decide what is the proper procedure.

The hope that all cases of syphilis would be cured by one dose of "606" has not been realised. Many of the patients injected as directed by Ehrlich with 0·3 grm. of the earlier form of "606" have relapsed. In one case under the writer's observation the relapse occurred after four months. In another case in which the full dose of 0·6 grm. was injected intra-muscularly, the patient has since had a

recurrence with severe iritis and retinitis, necessitating further treatment. All agree that the immediate effects of an injection of "606" are remarkable. The drug is much more active than mercury, especially in the primary and tertiary forms of the disease and in congenital syphilis. The most resistant cases are found in the secondary stage. Cases of malignant syphilis have been found to react remarkably well, and there is no doubt that lives which would have been lost under the old form of treatment have been saved by "606."

It cannot be too strongly urged that every care must be taken in the proper selection of cases. Any grave visceral disease of non-syphilitic origin is held to contra-indicate the use of "606," and especially advanced disease of the kidneys and the central nervous system. It is, therefore, imperative to make a thorough examination of the patient, especially of his vascular and nervous systems, and of the urine before administering an injection. Among the untoward after-effects recorded are albuminuria, usually transitory, temporary abolition of the patellar reflexes, and intestinal irritation, tenesmus, etc. Occasionally there is some local necrosis in the gluteal region after intra-muscular injection. In one case, an infant under the writer's care, a small sterile abscess formed, but gave little trouble. In the enormous number of cases now on record there is no instance of the optic nerves having been affected.

The effect of "606" upon the spirochætes in the lesions is most remarkable. In the writer's clinic fluid from a primary chancre was found to be swarming with spirochætes at the time the injection was made, and not one organism could be demonstrated twelve hours later. It is quite common for the spirochætes to disappear entirely in twenty-four or forty-eight hours, but in some cases they have been present as late as a fortnight after the injection.

The effect upon the blood is an increase in the leucocytes. Mr. McDonagh gives the average count as 17,000.

The influence of the injection upon the Wassermann reaction is very variable. Neisser, in his early report, found that only 10 per cent. of his cases changed from the positive to the negative. It is probable that with larger doses the results will be better. In the majority of early cases of syphilis treated by large doses of "606" the reaction changes from positive to negative in from three to eight weeks. It may here be noted that a positive Wassermann should not be waited

for in a case of undoubted syphilis, for it is well known that the specific reaction may be absent in a patient recently infected. Treatment should be begun as early as possible.

Ehrlich insists upon the importance of watching the Wassermann reaction after the use of the new specific, for it is found that after a negative reaction has been produced the blood may again become positive to the test, and this is an indication for a further injection. This return of the positive Wassermann reaction was noted in one of the writer's cases three months after the negative reaction had appeared, and it was attended with the appearance of condylomata. It is, of course, exceedingly difficult, especially in hospital practice, to observe the conditions of the blood for a long time, but it is only by a series being followed thus that the question of the permanence of the results of the new treatment can be estimated. A small number of cases so followed will be of the greatest value in the present stage, and those who have the opportunity are most urgently urged to co-operate in obtaining this most important information. The collection and publication of the immediate results in hundreds of cases is no longer necessary. There is sufficient evidence of the value of the remedy and of its general safety in suitable cases, but the permanence of the results and how such permanency may be attained have yet to be proved. Whether "606" is the final stage of the evolution of the treatment of syphilis or not, there is no doubt that it is a precious addition to our materia medica.

J. H. S.

THE WASSERMANN REACTION.*

By PAUL FILDES, M.B., B.C.,

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The Wassermann reaction in the short space of four years has attained a position of autocracy which is quite abnormal among medical diagnostic methods. From a "positive" finding there is, within certain well-understood limits, no appeal; the individual

* *Die Wassermannsche Reaktion mit besonderer Berücksichtigung ihrer klinischen Verwertbarkeit.* Von Priv.-Doz. Dr. Harald Boas. Berlin: S. Karger, 1911. Pp. 186.

yielding such a result is, again within certain limits, to be regarded as actively syphilitic, and must be treated as such. This position has been won by the incessant efforts of that large group of investigators known as the "Wassermann school." The position was, however, attained some time ago; recently no material advance appears to have been attempted; the Wassermann school has confined itself largely to attacks upon those who hold "that if the reaction was to come into general use it would have to be greatly simplified." The reference is to those who are responsible for the countless "modifications" of the Wassermann reaction, modifications which claim all the significance of the original, without having been demonstrated to be entitled thereto. Germany has, then, to some extent relinquished the further study of the reaction, and for information we must turn to Denmark, where, in the State Serum Institute at Copenhagen, under Dr. Madsen's direction, Boas, Thomsen, and others have for some time applied those detailed and accurate methods to the study of the reaction for which this institute is celebrated.

The present results of these investigations are included in Boas' work, *Wassermanns Reaktion med saerligt Hensyn til dens kliniske Anvendelighed*, Kφbenhavn, 1910, pp. 227, which, now translated into German with some alterations, forms the subject under consideration.

This volume contains a warm appreciation by Prof. Wassermann, and must be taken as the leading authority upon this subject at the present time. In view of the absence of any authoritative account in this country and the presence of a considerable number of loose statements, it is to be hoped that an English edition of the book may be forthcoming.

In keeping with the character of the work, no attempt is made to enter into a discussion of the theories advanced, though a complete account of the observations upon which these theories are based is contained in an historical survey. It is the section dealing with the author's technique which has the first interest from the practical point of view. Here nothing is taken for granted; every step is subjected to searching comparative tests. The endeavour is to obtain constants in the case of all reagents, except the serum to be investigated, and thus to give greater importance to slighter inhibitions of hæmolysis than is possible with the methods usually employed.

The "antigen," an alcoholic extract of human heart, is, when

freshly prepared, a constant factor. The hæmolytic system, complement and amboceptor, is reduced to a constant by titrating both these substances before every day's tests—a procedure which requires at least four hours' work. The amount of non-specific inhibition of hæmolysis by non-syphilitic sera alone is determined on the basis of 1064 investigations on a very large number of diseases. Thus, any serum which gives an amount of inhibition greater than that given by any non-syphilitic serum, *plus* the calculated technical error, may be accounted positive. In every case the amount of inhibition is actually measured by means of Madsen's colorimetric method, and not simply described as "slight" or "moderate." It is this great accuracy of technique which enables a positive diagnosis to be based upon a slight inhibition of hæmolysis; as the reaction is usually carried out such a procedure would certainly lead to erroneous diagnosis, and is always to be avoided. That Boas' technique is not too delicate for the lack of specificity in the reaction is obvious from his results. In the 1064 control cases only one was positive, and that a case of scarlet fever. When it is observed that these controls include tuberculosis, lobar pneumonia, malignant diseases, malaria, leprosy, and other diseases in which the occurrence of the Wassermann reaction has been alleged from time to time, it will be seen that his technique is not only safe, but highly specific, and further, as will be noticed later, gives a very high percentage of positive results in cases of syphilis.

Boas lays great stress upon the importance of carrying out all Wassermann reactions in a quantitative manner—a method which is impossible in the case of all the ordinarily suggested modifications. This is not a new suggestion. Citron recommended the use of two quantities of serum, Browning and McKenzie the use of varying quantities of complement, and Zeissler the use of more than one "dose" of antigen. Boas, however, must be given full credit for the elaboration of the idea. In every case he uses five amounts of serum, ranging from the usual ·2 c.c. to ·01 c.c. The variation of the serum is undoubtedly better than the variation of other factors. These quantitative estimations have cast new light upon numerous questions which up to now have been under discussion. For instance, what is the effect of mercury treatment upon the reaction? In this country estimations before and after have compelled the answer "very little," while abroad a somewhat greater effect has been obtained. Boas, how-

ever, shows that practically *every case* is affected for the better. The divergence of opinion arises in this way: Before a course of mercury a patient may have a completely positive reaction; after that course the reaction is still complete. The result of the mercury is, therefore, *nil*. Let the reaction, however, be carried out quantitatively and the following result may be obtained:

Amount of serum used in the test.	Reaction before treatment.	Reaction after treatment.
·2 c.c.	complete positive	complete positive
·1 „	„ „	medium „
·05 „	„ „	slight „
·02 „	„ „	negative
·01 „	„ „	„

It will be seen, therefore, that the Wassermann reaction is of very much diminished value for controlling treatment unless carried out quantitatively. We have found this to be particularly the case at the London Hospital in the treatment of patients with "606." At the outset, with a qualitative test, no information is given as to when the reaction may be expected to become negative. Further, with the weekly occurrence of complete positive reactions, no information is available as to whether the reaction is rapidly becoming less or is stationary, an indication of the fact that the patient is not doing well. In a case of congenital syphilis, no apparent effect was produced upon the reaction by repeated injection of "606," and it was only when quantitative estimations were instituted that we were able to observe the gradual reduction of the reaction to, at present, a medium positive condition.

By quantitative methods Boas clearly shows that in the case of secondary, latent, and tertiary syphilis, as also in tabes, the reaction is on the average less than half as strong when treated by anti-syphilitics than when untreated. Contrary to statements that have been made, the same general result obtains in congenital syphilis, but for general paralysis no satisfactory data are obtainable.

With reference to the value of negative reactions in the diagnosis of syphilis, Boas' results are also of the greatest importance. It is well known that many cases give negative results even when obviously syphilitic. A negative result is, therefore, commonly held as having no significance. Thus in the literature one finds, in some 8000 cases,

that in primary syphilis 65 per cent. of positive results have been obtained, 90 per cent. in the case of secondary, 83 per cent. in tertiary and 44 per cent. in latent cases. Boas obtained 73 per cent. in primary, 97 per cent. in secondary, 95 per cent. in tertiary, and 37 per cent. in latent syphilis. These figures demonstrate the great delicacy of Boas' technique. These figures, however, refer to all cases of syphilis. If they are divided, as Boas has done, into cases untreated and cases treated, the figures assume an entirely different aspect:

Secondary Syphilis.		
Entirely untreated	269 +	0 —
Relapsed cases treated at the outset .	187 +	12 —
Tertiary Syphilis.		
Entirely untreated, or treated only during the secondary period . .	63 +	0 —
Treated as tertiary syphilis. . .	16 +	4 —
Early Latent Syphilis.		
Entirely untreated	11 +	0 —
Treated	89 +	154 —
Late Latent Syphilis.		
Entirely untreated	4 +	0 —
Badly treated	33 +	11 —
Well treated	11 +	56 —
Tabes.		
Untreated as tabes	17 +	0 —
Treated as tabes.	11 +	15 —

The remarkable result is thus obtained that in these forms of syphilis, when untreated in the manner stated, 100 per cent. of positive reactions are found. Therefore, when anti-syphilitic treatment can be excluded a negative result will, in a doubtful case, make a diagnosis of syphilis highly improbable. The value of the test will naturally depend upon the technical excellence of the method employed by the investigator, but, in any case, a strict investigation into the

possibility of former anti-syphilitic treatment is essential before dismissing a negative result as valueless.

The much-vexed question of the modifications of the Wassermann reaction is shortly dealt with by Boas. It is impossible and unprofitable for persons engaged in accurate research to investigate the merits of the modifications on hundreds of sera; he therefore confines himself in most cases to a review of the objections to them. It must be distinctly understood that any conclusions mentioned above are derived from a study of Boas' work, and do not, unless proved to the contrary, apply to any modifications of the principles involved in the original reaction. It is quite clear, in view of the interests involved, that before any modification is accepted, it must be proved by hundreds of comparative tests against the original reaction performed by an experienced technician that the modification is as good, but more convenient, or superior. This has not been done, except, perhaps, partially in the case of Margarete Stern's reaction and Noguchi's principle. Noguchi's reaction as usually described, and, of course, its further modifications, which have been placed upon the market in almost pocket-form as von Dungern's reaction, do not come under this category. Margarete Stern's reaction emanates from the Wassermann laboratory, and by reason of a certain percentage of error is considered to be inadmissible except as an elaboration of the original reaction.

The great interest of Boas' book to the technician does not exclude a similar interest to the clinician. Every section and a special chapter is concluded with a clear statement of the practical results. None of these statements are involved in the fog of discussion; they stand out as the logical consequence of observed facts. As the author says, the Wassermann reaction has not, and will not, obviate the necessity for clinical observation in syphilis, any more than the invention of the stethoscope or the discovery of the tubercle bacillus has obviated the necessity of clinical investigation. Nevertheless, it is clear that, even if the detection of the tubercle bacillus does not require much training, the Wassermann reaction must be performed by a person well versed in serological technique if the results are to be taken as being beyond reproach.

ROYAL SOCIETY OF MEDICINE.

DERMATOLOGICAL SECTION.

Dr. H. G. Adamson showed a case of *secondary syphilis in which a fading roseola simulated ichthyosis.* The patient was a woman,

aged 40 years, who had first attended the hospital two weeks ago. The skin of the legs, from the groins to the ankles, presented a condition which closely resembled that of congenital ichthyosis. The horny layers of the epidermis were mapped out into polygonal, brownish-coloured patches, or what appeared to be flat scales adherent at their central part and free at their margin. The forearms were similarly

affected, but to a less extent. This condition was limited to the arms and legs, and was of recent origin, thus excluding the diagnosis of ichthyosis. Further examination had revealed the fact that the patient had syphilis. Several typical lenticular papules were found on the trunk and limbs, and two on the palm of the right hand. These were alopecia, patchy loss of eyelashes, deafness, and general glandular enlargement, all of recent origin. The patient's husband had been attending for syphilis since nine months ago. The blood of the patient had given a positive Wassermann reaction. The present condition, which so closely simulated ichthyosis, was apparently the remains of a wide-spread and profuse roseola, the brownish patches or scales occupying the seats of former macules.

Mr. Willmott Evans showed a case of *Epidermolysis bullosa*. The patient was a woman, aged 46 years. There was no history of heredity, and she said that the disease did not appear till she was about 12 years old. The bullæ developed especially on the limbs, and some of them were hæmorrhagic. The nails hardly exist, and she had no teeth, as she had lost them when comparatively young. Mr. Evans first saw the case nine years ago, and he had noticed, as has been recorded in other cases, that the bullæ were less easily evoked at the present time than when he saw her before. Now, she never developed any bullæ on the back or neck. He mentioned that the patient had been in most of the hospitals and infirmaries in London, and she had been known to many members of the Section at different times.

The President brought a woman, aged 42 years, with dull red, indolent, inflammatory nodules distributed round and just above both ankle regions except in front. There was also a small lesion on the dorsum of one toe, and an isolated nodule higher up on the back of one calf. The nodules were crowded in places, and varied in size from a pea to a filbert or more. They presented a dull indolent red colour, and some had ulcerated. This was the fourth outbreak the patient had experienced over about ten years, the last occurring two years ago. She has the scar of a glandular abscess in the neck, and an unusually marked family history of phthisis in her brothers and sisters and former generations.

The exhibitor said such cases were always interesting, and he did not think it right to hold a positive opinion as to its nature without further research. He thought it probably a tuberculide, and in many respects approaching Bazin's Erythema induratum, but the localisation was not typical. As the patient was aged 42 years he would much appreciate Dr. Whitfield's opinion, but it was probably not the type Dr. Whitfield had differentiated from Erythema induratum.

Dr. Pringle said that one of the isolated lesions at the upper part looked and felt like Erythema induratum of the tuberculous form. The alternative diagnosis was syphilis, and he suggested the propriety of a Wassermann test.

Dr. Whitfield said he had never seen in young people the type of non-tubercular nodule which he had separated from Erythema induratum, nor had he ever seen ulcerating in the non-tubercular form. In this case he recommended very cautious treatment with old tuberculin. He had had very good results with it. He got a physician to overhaul the condition of the patient's lungs, and

began with $\frac{1}{4000}$ c.c., which was not enough to cause a reaction, but he doubled the dose each week until there was a constitutional disturbance. Recently he had treated a case in this way, and of five nodules four had absorbed rapidly without ulceration, and the fifth had discharged through a pin-hole opening, afterwards rapidly healing.

Sir Malcolm Morris said that in the old days it was the second dose of the tuberculin which caused the reaction. Small doses of the new tuberculin did not cause a reaction. He doubted the wisdom of giving tuberculin in cases which were easily cured otherwise.

Dr. Graham Little showed a case of *Acne scrofulosorum* in a girl, aged 12 years, with very typical lesions, closely resembling a case shown by the exhibitor in 1902, also in a girl (Ada D—, aged 10 years, *British Journal of Dermatology*, 1902, p. 92). On comparison of this case now shown with the water-colour drawing also shown of this older case the resemblance was striking. The eruption had appeared a few weeks previously, and was confined to the lower limbs, not being seen higher up than the middle of the thigh. Below this level it was very copious and consisted of small dark red, almost bluish deep-seated follicular papules with a small pustule in the centre of many of them. There were no pitted scars as yet, the eruption not having lasted long enough to produce them. There was no family history of consumption and the child's condition was apparently normal. There was no blueness of the extremities, which is almost always seen in these cases. She was, in fact, well nourished and of good colour.

In the exhibitor's experience Acne scrofulosorum was the rarest of the tuberculides. It was common in the East End, as a comparison of the cases seen at the Children's Hospital, Shadwell, and at St. Mary's showed. The duration of the eruption varied greatly: the exhibitor had watched a case continuously for eighteen months, during which the lesions had persistently appeared; now commonly the duration was much shorter. The distribution was markedly greater on the lower extremities, and in some instances, as in the present case, confined to these. They were more often seen in winter than in summer, and "chilblain circulation" was a frequent association.

A question having been raised as to the relationship of Acne cachecticorum to the tuberculides, and particularly to Acne scrofulosorum, Dr. Whitfield said that when he was in Vienna, Kaposi used to apply the term "Acne cachecticorum" to an ill-defined condition of the skin, usually occurring in old people associated with general marasmus. The skin showed an indolent folliculitis,

which suppurated as the result of trauma. He did not think that Acne cachecticorum of the Vienna school was usually tuberculous in nature.

Mr. J. E. R. McDonagh showed *the most convenient method of giving "606" intravenously.* Into a graduated glass measure of 250 c.c. capacity about 20 c.c. of warm saline solution, made from *distilled* water, are poured, and in this the powder dissolved, without the addition of any alcohol, since salvarsan is more soluble than the earlier preparations of "606." If the saline is made from tap-water a precipitate forms on adding sodium hydrate.

When the powder has become completely dissolved 10–15 c.c. of *n*/5 sodium hydrate are added until the precipitate first formed becomes completely dissolved.

Under no condition must the fluid be injected until it is absolutely clear and contains no solid particles—it can always be strained through muslin before use if necessary.

The bulk is finally made up to 8 oz. or to 250 c.c. with warm saline *distilled* water. The measure should stand in a vessel of hot water so that the solution is kept warm while it is being injected.

The syringe is made by B. B. Cassel, Frankfurt a/M, after Schreiber's directions.

The cannule is bayonet shaped, bent, and fixed to a three-way metal stop-cock, so that the fluid can be drawn up from the vessel and injected directly into the vein.

The needle has also a plate at its base upon which a finger can rest to keep it steady.

The syringe is first filled with saline solution from another vessel by means of rubber tubing fitted on to the stop-cock and all the air is expressed.

The needle is inserted into a vein made prominent by means of a tourniquet; occasionally, especially in women, the vein has to be exposed by an incision. If the needle is in a vein blood flows back into the syringe or no infiltration forms when the saline is injected. Having hit off a vein the tourniquet should be released and the rubber tubing changed to the "606" solution, which is gradually drawn up and injected into the vein, 20 c.c. at a time—the amount a Luer's syringe holds; finally the tubing is replaced in the saline solution, a small quantity of which is injected to prevent the leakage

of a drop or two of the "606," which is extremely painful when it gets into the subcutaneous tissue.

Should the needle slip during the injection, allowing some of the solution to escape, the patient complains at once of an acute burning sensation. The needle should be withdrawn and a tourniquet applied above to allow the vein to bleed, and in this way dilute the solution; this procedure usually prevents an infiltration forming.

Under ordinary circumstances the patient experiences no pain while the injection is made—occasionally a "swimmy" feeling in the head and a tingling sensation in the fingers and toes, but only when the solution is injected cold.

A few hours later the temperature may rise to 101° F. or 102° F., there may be a rigor or two and an attack of vomiting, but the next morning the patient wakes up feeling perfectly well.

If the patient is prepared for an intra-venous injection, as for a surgical operation, the subjective symptoms may be *nil*.

Owing to the arsenic being excreted within three days the injection may safely be repeated if the symptoms have not shown marked signs of improvement within three days. If, on the contrary, the symptoms disappear, a second injection should only be given on obtaining a positive Wassermann's reaction about four weeks later. The second injection can be either intra-venous or intra-muscular.

Advantages of the intra-venous route:

(1) Much less inconvenience to the patient.

(2) The action is quicker and greater.

(3) Toxic symptoms are very much less.

(4) The reaction is of much shorter duration—a very important factor in treating nervous diseases.

(5) An arsenic *depôt* is not formed, which becomes a danger when a second injection has to be given, as the arsenic encapsuled may become liberated, and with that injected form a toxic dose.

(6) Recurrences are much fewer.

(7) A syphilitic patient never fails to respond, which is sometimes the case after an intra-muscular injection.

The dose for an intra-venous injection varies between 0·3 and 0·5 grm. according as the patient is a female or male.

Dr. PRINGLE said he had seen Mr. McDonagh do the injection, and the opera-

tion was a perfectly simple one, and appeared to present no difficulty. In a case of malignant syphilis which Mr. McDonagh injected for him last week the effect was measurable, but there was some induration along the median basilic vein as far as the axilla. He wondered whether that was important and whether it often occurred. The amount of arsenic eliminated by the urine had been small in his case, but probably much would be found in the fæces.

Dr. SEQUEIRA said it was of the utmost importance that the drug should be perfectly dissolved before injection into the veins. He knew of one case in which the drug was introduced in a state of imperfect solution. The patient immediately became comatose and hemiplegic. Fortunately she recovered after some anxious hours, and her subsequent treatment by the intra-muscular method had been followed by the rapid disappearance of the evidence of syphilis. He questioned the necessity of giving "606" intra-venously if the injection had to be followed by a second dose given intra-muscularly, as recently advocated. The great advantage of the intra-venous method lay in the elimination of the pain. The formation of an arsenic *depôt* in the tissues seemed likely to be of greater therapeutic value than the introduction of the drug into the veins and its elimination of the body in three days. The relative value of the methods could only be learned by further experience.

Dr. SEQUEIRA showed an unusual case of *linear nævus*. The special features of the case were the bilateral arrangement of the streaks and the remarkable pigmentation of the trunk.

The patient, a boy, aged 5 years, presented lines of warty growths extending from the buttocks to the heel on each side and similar streaks along the upper extremities from the axillæ to the backs of the hands. The warty excrescences varied in size from a millet-seed to a small pea. They were of brownish or yellowish-brown colour, hard, and, where large, fissured on the surface. Some had occasionally become ulcerated from traumatism. The streaks were broad on the hands and on the fingers, while the soles were almost covered with flat, brownish, warty masses. In addition to the warty streaks there was a remarkable pigmentation of the back; the pigment was arranged in curved lines radiating from the spinal column. The appearance suggested a feather. The pigmentation covered the greater part of the back. The surface of the skin in this region was quite smooth. There was a slight amount of pigment in irregular lines on the chest and upper abdomen. There was no history of a similar affection in other members of the family.

The case was shown to illustrate the fact that linear nævus is not always unilateral, to show the peculiar associated congenital pigmentation, and to ask for suggestions for the treatment of the feet and

hands, whose condition would certainly interfere with the patient ultimately getting a livelihood.

Sir Malcolm Morris said that formerly the treatment was by means of the actual cautery.

Dr. Whitfield asked whether the X-rays had been tried. That treatment might do good, as there was no undergrowth, the condition being purely epithelial.

Dr. Sequeira, in reply, said he was not disposed to push the X-rays in such a case. He had once had a case of tylosis sent to him in which prolonged treatment by the rays had caused profound sclerotic scarring, with immobility of the fingers. It appeared to be necessary to cause a dermatitis to get rid of the condition, and he did not think it would be wise to attempt X-ray treatment where the hands and feet were involved.

Drs. F. Ashton Warner and Wilfrid Fox showed a case for *diagnosis*. The patient, A. M—, was a man, aged 64 years, who had been under the care of one of the exhibitors (F. A. W—) at intervals for the past ten years. He was well-to-do, and had travelled in the East, but had had no fever or other illness peculiar to this part. As a young man he was treated for syphilis by pills. Some five years ago he complained of constant "rheumatic pain" in the calves of the legs and back. His gait at this time was sailor-like, with the legs wide apart, but not ataxic. He was treated with sulphur baths and mercurial inunction, and from time to time subsequently had had a course of iodide of potassium and mercury, but had taken neither drug for the past twelve months. Some fifteen months ago there appeared on the upper and inner side of the right leg, near a varicose vein, a raised, purplish-coloured, irregular-shaped lump, about half an inch in length and a quarter of an inch in width, which could be picked up with the fold of skin between the fingers. There was no tenderness, and the surrounding skin appeared quite healthy. This was followed a few weeks later by a nodule on the right fore-arm, similar in all respects. Since then, both upper and lower extremities, buttocks and back, have been covered with these nodules. The general health was good, there was no enlargement of the spleen, and no glands could be felt. There were altogether upwards of 200 nodules in the skin, most of them quite superficially placed, being freely movable on the deep fascia below. Some few were, more correctly, subcutaneous. There were none on the hands, feet or face. A few small ones had made their appearance on the

top of the scalp, but were tending to disappear. At no time had any of these nodules shown any sign of ulceration—the skin over them was perfectly healthy excepting in so far that it was shiny from stretching. There was no previous eruption before the nodules came, which could be looked upon as a pre-mycotic stage. The nodules, after being up for some weeks, generally about eight to twelve, disappeared of their own accord, either by becoming concave in the centre, and the concavities spreading until only the outer raised rim was left, which was finally eaten away too, or by a similar process starting at the edge, eating its way into the centre until the nodule became crescentic in outline, and then gradually spreading further and further until nothing was left. A slight stain marked the situation where the nodules had been. The largest nodule was situated just below the right popliteal space, corresponding in size to a split tangerine orange. There had been no itching either before the nodules came or while they were in process of evolution, but a few of them had been slightly irritable just as they were disappearing. The itching had never at any time been intense—it could always easily be alleviated. The nodules were firm, and did not tend to break down at any point. The patient was otherwise a healthy, active man for his age, riding a bicycle frequently twenty and thirty miles in a day. The exhibitors were of the opinion at this stage that the diagnosis lay between Sarcoma cutis, Mycosis fungoides or leukæmic infiltration of the skin. An examination of the blood was therefore made by Dr. Matthews, who reported as follows: Red cells, 5,760,000; leucocytes, 6924. Differential count: Polymorphonuclears, 64·41 per cent.; large mononuclears, 20·94 per cent.; lymphocytes, 12·56 per cent.; eosinophiles, 2·09 per cent. There was no poikilocytosis. The chief alteration from the normal in the differential count, therefore, appeared to be an increase of the large mononuclears at the expense of the small lymphocytes.

A biopsy was made from one of the nodules on the arm by Dr. Warner under a local anæsthetic. The tissue was put through paraffin in the ordinary way and sections were cut. These sections were stained with borax methylene-blue, Giemsa, Pappenheim, logwood and Van Gieson, acid-fast and acid-orcein. Under a low power the epidermis appeared normal except in so far that it was altered by pressure, and by the presence of increase in pigment.

There was no ulceration or loss of surface in any part of the section. There were a few non-epidermal cells straying amongst the cells of the basal layer and prickle-cell layer. In the corium there was a dense infiltration of cells, which seemed by their large numbers and the pressure by which they were produced to have disintegrated the collagen bundles. The infiltration extended from the level of the subpapillary plexus down to the fat in the subcutaneous tissue. They were specially collected round hair-follicles and blood-vessels, although this was best seen at the edge of the infiltration, where the number of cells was not so dense. In some places the cells were collected together very closely in small clumps, giving the appearance of giant-cells. In the dense part of the infiltration blood-vessels were extremely few; those that were present appeared to be thickened, and the endothelial cells lining their walls were unusually prominent. Under a high power the cells composing the epidermis again appeared to be normal, and the cells which had infiltrated into the epidermis from below appeared to be mononuclear cells resembling lymphocytes. The cells composing the infiltration in the corium varied in character: some appeared to be small lymphocytes, some large mononuclears, and some plasma-cells, although these latter did not take on the Pappenheim stain well. Some of the cells which took on the Pappenheim plasma-cell stain tended to be spindle-shaped, and looked like the plasma-cells, seen in a healing infective granulomatous lesion, which are becoming fibroblasts. The large mononuclear cells in the infiltration appeared to resemble those noticed in excess in the blood-smears, although, of course, this is difficult to confirm. The collagen in the dense part of the infiltration appeared to be broken up into little lumps, and in the sections stained with acid-orcein the elastic-tissue was also fibrillated and broken up, but there was no degeneration into elacein. The sections, as a whole, gave the appearance of the cells being due to an exudation from the blood-vessels rather than from a new growth of the fixed tissues. In the acid-fast preparation there was no sign of any leprosy bacillus.

The exhibitors were of the opinion, from the evidence of the slides, that any form of sarcoma or malignant disease appeared to be eliminated. The case is also clearly not any of the infective granulomata. Mycosis fungoides, which perhaps might be suggested by some part of the clinical history, is out of the question histologically,

as there is no degeneration of the elastic tissue, nor is there any crenation of the cells composing the infiltration. The collection of cells containing the large single nucleus, especially in the lower part of the infiltration and round the blood-vessels, and the general aspect of the sections, seem to suggest that the tumours are due to some atypical blood disorder.

The members present were of the opinion that no definite diagnosis could be made.

Dr. PRINGLE said that clinically he would have little hesitation in identifying the case with the condition long ago described by Kaposi as "idiopathic multiple hæmorrhagic sarcoma of the skin," but in view of Dr. Wilfrid Fox's statement that the tissue excised was not sarcoma, and of the great discrepancies of opinion among histo-pathologists on the whole subject, he suggested that the specimens might be referred to a sub-committee to further investigate and report.

Dr. PERNET said that the late Dr. Radcliffe-Crocker and he had something apparently similar without any precedent trouble in the skin, but the lesions broke down ultimately and formed Mycosis fungoides tumours. They were mycosis fungoides *d'emblée*. One case which the present one reminded him of was diagnosed by Dr. Radcliffe-Crocker as of the Lymphoderma perniciosa type of Kaposi. In the last stages of that patient's illness the head began to swell, and tumours very like those seen in the present case developed, but they were not so large as the larger ones in the patient before them.

Dr. WHITFIELD, on examination of the slides, suggested that the case would come under the head of sarcoid of Boeck.

Dr. MACLEOD considered that histologically the tumour could not be looked upon as a sarcoma, that it was not typically a Mycosis fungoides, but might be some allied condition of this nature, perhaps Lymphodermia perniciosa. A leukæmic nodule was also a possibility in spite of the blood condition. The exhibitors quoted a case of Lavenson's in which he spoke of "a leukæmic phase of leukæmia." This idea had been suggested to them by Dr. Rolleston, who had been kind enough to examine the slides.

Various members expressed a desire to see the case again at a later stage, and the exhibitors promised to do what they could to persuade the patient to come.

Dr. F. PARKES WEBER showed a case of *chronic (artificial?) skin-eruption in a patient whose case has been followed for fourteen years*. For about the last seven and a half months the patient, a woman, now aged about 37 years, has suffered from a chronic vesicular, or eczema-like eruption on the abdomen, and from superficial ulceration of two old laparotomy scars. She has likewise had one or two temporary patches of skin-eruption elsewhere. She says also that she has had amenorrhœa since the laparotomy in August, 1909, referred to later on.

During the last fourteen years she has been in various hospitals in London and elsewhere, and sometimes her condition (tympanites, vomiting, abdominal pains, etc.) had been considered desperate. On various occasions laparotomies have been performed (four times altogether), and the stomach, colon and all the abdominal viscera have been thoroughly explored, on the last occasion (in a large London Hospital, August, 1909) by two incisions, one above and one below the umbilicus; but no evidence of any organic disease had ever been detected. At intervals the patient appeared to have been able to work hard as an expert cook.

The history of the case up to 1903 was given by Dr. Weber, in *Brain*, London, 1904, vol. xxvii, p. 170. In the years 1896 and 1897, vomiting of formed fæces and of oil enemata or enemata coloured with methylene-blue was observed.* From the histories of similar cases it appeared that vomiting of formed fæces (actual scybala) never occurred except in cases of *functional* disease, that is to say, it never occurred in so-called "fæcal vomiting" connected with acute or chronic organic intestinal obstruction.

The patient was last under direct observation in the German Hospital from December, 1909, to February, 1910. Her troubles included frequent attacks of vomiting, abdominal pain and distension, habitual constipation, headaches, and hysterical paresis of the left leg. Then her general condition improved very much, except for the appearance of the skin-eruption now in question. She moved about quite well now, and Dr. Weber attributed some of the improvement to the need (that has lately arisen) for the patient to help her mother, of whom she appeared to be fond.

Dr. SEQUEIRA said he was present at the operation on the patient at London Hospital, when Sir Frederick Treves examined the alimentary canal from one end to the other, but found nothing abnormal, except the adhesions left by the previous operations.

* *Cf.* Sir F. Treves' account of the case in the *Transactions of the Medical Society of London*, 1898, vol. xxi, p. 224.

THE JOURNAL.

At a meeting of the Guarantors, Sir Malcolm Morris, K.C.V.O., in the chair, the resignation of the Editorship by Dr. J. M. H. MacLeod was received with great regret, and a hearty vote of thanks was accorded him for his untiring zeal in the management of the Journal. The meeting subsequently elected Dr. J. H. Sequeira to the vacant Editorial Chair. Dr. J. L. Bunch will continue to act as Assistant Editor.

CURRENT LITERATURE.

DERMATITIS HERPETIFORMIS IN EARLY CHILDHOOD.

Richard L. Sutton, M.D. (*Amer. Journ. Med. Sci.*. 1910. vol. cxl. p. 727.)

The author reports a case in a male child commencing at the age of nine months and continuing to the time of the report, when the patient was three and a half years of age. The child, of Hebrew parentage, was nursed at the breast till eight and a half months old, when he was weaned and had a diet of cow's milk with some semi-solid food. Shortly afterwards the eruption made its appearance, the mother comparing the lesion to a mosquito-bite. At the beginning there were about a dozen lesions: new ones developed more rapidly and the old ones disappeared, and during this first attack, which lasted for three months, a score or more of the vesicle-capped papules were usually present.

An improvement occurred when the child was about twelve months old, followed by recrudescence, a milder attack lasting about five weeks. The eruption has since occurred three or four times every year, lasting for two to six weeks. The trunk and limbs have been attacked; the face, scalp, and mucous membranes have always escaped.

The treatment adopted by Dr. Sutton in this and certain other cases of Dermatitis herpetiformis is the administration of thyroid gland in small doses. He rarely gives more than 1 gr. of an active reliable preparation three times daily and continues it during considerable periods of time. In the case under observation $\frac{1}{6}$ gr. doses of the thyroid preparation have been administered. The paper gives references to numerous cases of the disease occurring in infancy and in childhood and discusses the phenomena of the disease.

J. G.

ARSENICAL KERATOSIS AND ARSENICAL CANCER.

Dubreuilh. (*Ann. de Derm. et de Syph.*. February, 1910, p. 65.)

Arsenical keratosis is of comparatively modern observation, and appears to be especially common in England and America, probably because of the greater abuse of the drug in these countries. Dubreuilh describes three cases of keratosis without cancer, one with the latter development (demonstrated microscopically to be epitheliomatous). The sequence of cancer is very exceptional, only nineteen cases being on record, usually beginning many years after the initial keratosis had shown itself, and sometimes when the drug had been stopped for many years previously. When epitheliomatous changes have taken place the course of the

case is frequently rapidly malignant. Histological examinations are very scanty, only two being found in the literature by Dubreuilh.

An analysis and bibliography of the published cases are appended.

E. G. L.

EPITHELIOMA AND LUPUS VULGARIS. Bargues. (*Ann. de Derm. et de Syph.*, January, 1910, p. 3.)

It is somewhat surprising to find from a quotation of statistics contained in this paper how comparatively rare this combination is: 164 cases appear to exhaust the number of published instances. The author contributes six new cases from the clinique of Dubreuilh, and minutely analyses the published records of 164 cases. A full bibliography is added.

E. G. L.

LICHEN RUBRA ACUMINATUS (PITYRIASIS RUBRA PILARIS OF DEVERGIE). Bizzozero. (*Ann. de Derm. et de Syph.*, February, 1910, p. 84.)

This is a case in which the diagnosis was somewhat uncertain, many points in the general character of the eruption resembling Lichen spinulosus, and notably against the diagnosis of Pityriasis rubra pilaris is the fact that the scalp and hands, positions where Pityriasis rubra pilaris is usually found, even in scanty distribution, were free. The histology, however, seemed to point decisively to the diagnosis given by the author, who considers the case as one of Pityriasis rubra pilaris, complicated by excessive "spinulosism."

A bibliography is appended.

E. G. L.

"STEREOPHLOGOSIS," NODULAR AND CIRCINATE (GRANULOMA ANNULARE OF CROCKER). Pellier. (*Ann. de Derm. et de Syph.*, January, 1910, p. 28.)

This disease has a "bad eminence" in profuseness of synonyms, and Pellier adds to the number the new designation above, for which there seems little justification; the pathology of the disease remains undemonstrated; the name proposed by Crocker is unambiguous and now widely accepted, and it only adds to the complication of the subject to invent new names. Pellier reports a new case of quite typical clinical aspect. The histological examination showed some necrosis and scarring, features which have been reported in other cases, as well as the typical perivascular inflammation of the deeper and middle zones of the corium.

E. G. L.

XERODERMA PIGMENTOSUM. Rouvière. (*Ann. de Derm. et de Syph.*, January, 1910, p. 34.)

This paper records a remarkable series of three cases of this disease occurring in three sisters, in one of whom death rapidly followed the appearance of glandular enlargements. X-ray treatment seemed to produce a complete cure in one instance. The family consisted of four brothers and four sisters. None of the male members were affected.

E. G. L.

REVIEWS.

Diseases of the Skin (including Radiotherapy and Radium-therapy).*

This work, as stated in the translator's preface, comprises the second edition of the volume on "Diseases of the Skin" in the *Nouveau Traité de Médecine*, written by Professor Gaucher and other authors, together with the chapters on cutaneous syphilides and the treatment of syphilis from the *Précis de Syphiligraphie*, by the same author. Professor Gaucher's name is so well known in this country, especially in connection with his work on syphilis, that a book from his pen needs no introduction. The English reader will scarcely be convinced when he is told that Pityriasis capitis and seborrhœic eczema are diathetic affections, or that the prognosis of psoriasis may become grave owing to metastases; but the author explains his adherence to the old doctrines of the French school by defining diathesis as a chronic auto-intoxication by nitrogenous extractive matters, and by regarding what he calls the diathetic dermatoses as autogenous toxidermias.

Recent developments in radium-therapy, as applied to nævi and epithelioma, are dealt with by Wickham and Degrais and by Dominici respectively, and there are also excellent special articles on sporotrichosis by Monier-Vinard, and on blastomycosis by Rubens-Duval; on the other hand, some of the newer methods of treatment, such as the use of vaccines, of carbon dioxide snow, and of the arsenical preparations for syphilis, are conspicuous by their absence.

A large number of excellent illustrations are provided, mostly from the models in the St. Louis Hospital Museum, and from photographs taken from the author's private collection. The translator has succeeded in producing a lucid and readable rendering of the French.

A System of Syphilis.†

The fifth volume of the *System of Syphilis* deals with the affections of the skin in syphilis, ocular syphilis, aural syphilis, and syphilis in the upper air-passages. The affections of the skin are described by Drs. Phineas Abraham and Haldin Davis. Commencing with a historical and general review of the subject, they pass on to a discussion of the somewhat complicated systems of classification of the syphilides from the time of Tovella and Fallopius, in the fifteenth and sixteenth centuries, down to those of Fournier, Neumann and Kaposi. The different forms of syphilides are next described in detail, special sections being devoted to syphilis of the hair, nails, and mucous membranes. A useful chapter is added on the diagnosis of the syphilides from the more important cutaneous affections which they may simulate. The cutaneous affections of congenital syphilis are fully described, and the section is concluded by a brief chapter on the external applications which are of value in the treatment of the cutaneous manifestations as an adjunct to the general treatment of the disease. The section is clearly written, and presents the subject in a concise and interesting fashion, the teaching of the letter-press being greatly increased

* *Diseases of the Skin (including Radiotherapy and Radium-therapy)*. By Ernest Gaucher; translated by C. F. Marshall. London: John Murray, 1910.

† *A System of Syphilis*. Edited by D'Arcy Power and J. Keogh Murphy. Vol. v. Oxford Medical Publications, 1910. Price £2 2*s*.

by the excellent series of coloured photographs of patients and moulages which illustrate it.

The subject of ocular syphilis is treated by Mr. C. Devereux Marshall, that of aural syphilis by Mr. C. Ernest West, while syphilis of the upper air-passages is described by Dr. StClair Thomson. The editors are to be congratulated on this volume, which maintains the high standard of its predecessors.

LIST OF BOOKS, PAMPHLETS, ETC., RECEIVED.

Transactions of American Dermatological Association, Thirty-third Annual Meeting, 1909. Official Report by GROVER W. WENDE.

From URBAN & SCHWARZENBERG, Berlin and Vienna, 1910. *Lehrbuch der Urologie*. By Dr. LEOPOLD CASPER. Price 15*m*.

From BAILLIÈRE, TINDALL & COX, London, 1910. *Diseases of the Skin*. By JAMES NEVINS HYDE. Price 25*s*. net.

From J. WRIGHT & SONS, Bristol, 1910. *A Guide to Newer Remedies*. By J. M. FORTESCUE-BRICKDALE. Price 5*s*. net.

From OXFORD MEDICAL PUBLICATIONS, 1910. *A System of Syphilis*, vol. v. Edited by D'ARCY POWER and J. KEOGH MURPHY. Price £2 2*s*. net.

From BAILLIÈRE ET FILS, Paris, 1911. *Traité de la Syphilis*. By HENRI HALLOPEAU and CHARLES FOUQUET. Price 12 *fr*.

From JOHN MURRAY, London, 1910. *Diseases of the Skin*. By E. GAUCHER. Edited and translated by C. F. MARSHALL. Price 15*s*. net.

From W. B. SAUNDERS Co., London, 1910. *A Treatise on Diseases of the Skin*, 6th ed. By HENRY W. STELWAGON. Price 25*s*. net.

From JULIUS SPRINGER, Berlin, 1910. *Die Experimentelle Chemotherapie der Spirillosus*. By PAUL EHRLICH and S. HATA.

From J. ESPASA É HIJOS, Barcelona, 1910. *Manual de Dermatologia General*. By Dr. J. PEYRI Y ROCAMORA.

From H. K. LEWIS, London, 1911. *Salvarsan or "606" (Dioxy-Diamino-Arsenobenzol), its Chemistry, Pharmacy and Therapeutics*. By W. H. MARTINDALE and W. WYNN WESTCOTT. Price 5*s*. net.

From H. K. LEWIS, London, 1910. *An Epitomised Index of Dermatological Literature*. An Epitome of vols. i–xxi inclusive of the *British Journal of Dermatology*. By A. WINKELRIED WILLIAMS. Price 12*s*. 6*d*. net.

From J. & A. CHURCHILL, London, 1910. *Manual of Clinical Pathology*. By RICHARD WEISS. Price 2*s*. net.

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